

DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr & Associates Inc**
1670 Broadway Ste 3300 Denver CO 80202

ATTN: Tom Fertal

20 18S 9W Rice KS

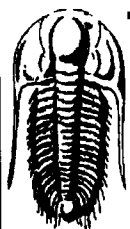
Frees #1-20

Start Date: 2007.03.10 @ 14:04:25

End Date: 2007.03.11 @ 02:00:20

Job Ticket #: 28216 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr & Associates Inc
1670 Broadway Ste 3300 Denver CO 80202
ATTN: Tom Fertal

Frees #1-20
20 18S 9W Rice KS
Job Ticket: 28216 **DST#: 1**
Test Start: 2007.03.10 @ 14:04:25

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:40:20
Time Test Ended: 02:00:20

Test Type: Conventional Straddle
Tester: Ray Schwager
Unit No: 28

Interval: **3254.00 ft (KB) To 3268.00 ft (KB) (TVD)**
Total Depth: 3339.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Fair

Reference Elevations: 1737.00 ft (KB)
1727.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6753

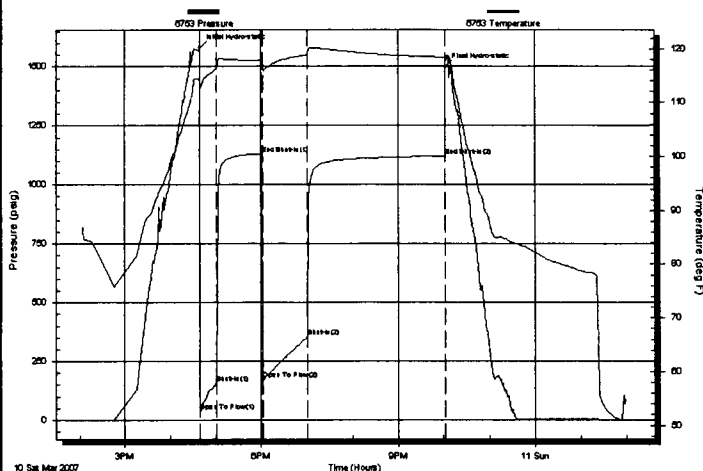
Inside

Press@RunDepth: 353.11 psig @ 3255.01 ft (KB)
Start Date: 2007.03.10 End Date: 2007.03.11
Start Time: 14:04:25 End Time: 02:00:20

Capacity: 7000.00 psig
Last Calib.: 2007.03.11
Time On Btm: 2007.03.10 @ 16:39:50
Time Off Btm: 2007.03.10 @ 22:02:19

TEST COMMENT: IFP Wk to strg in 15 min
FFP Wk to strg in 22 min
ISIP No bl bk
FSIP No bl bk Times 20 60 60 180

Pressure vs. Time



PRESSURE SUMMARY

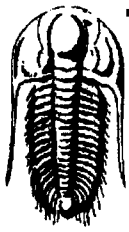
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1580.11	114.45	Initial Hydro-static
1	37.13	112.56	Open To Flow (1)
22	157.85	116.24	Shut-In (1)
82	1129.50	117.83	End Shut-In (1)
82	170.32	116.23	Open To Flow (2)
141	353.11	118.84	Shut-In (2)
322	1120.30	118.40	End Shut-In (2)
323	1495.72	118.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
150.00	Water RW .46 @ 55F	0.74
90.00	MGO 20%G 46%O4%W 30%M	0.44
650.00	CO	4.79
0.00	90' GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TESTING, INC.**

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TOOL DIAGRAM

Samuel Gary Jr & Associates Inc
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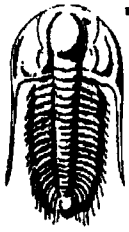
Frees #1-20
20 18S 9W Rice KS
Job Ticket: 28216 **DST#: 1**
Test Start: 2007.03.10 @ 14:04:25

Tool Information

Drill Pipe:	Length: 3007.00 ft	Diameter: 2.76 inches	Volume: 22.25 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose:	55000.00 lb
		Total Volume:	23.47 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial	37000.00 lb
Depth to Top Packer:	3254.00 ft			Final	45000.00 lb
Depth to Bottom Packer:	3268.02 ft				
Interval between Packers:	14.02 ft				
Tool Length:	116.03 ft				
Number of Packers:	3	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3227.00	
Shut In Tool	5.00			3232.00	
Hydraulic tool	5.00			3237.00	
Jars	5.00			3242.00	
Safety Joint	2.00			3244.00	
Packer	5.00			3249.00	28.00 Bottom Of Top Packer
Packer	5.00			3254.00	
Stubb	1.00			3255.00	
Recorder	0.01	6753	Inside	3255.01	
Perforations	6.00			3261.01	
Recorder	0.01	13534	Outside	3261.02	
Perforations	3.00			3264.02	
Blank Off Sub	1.00			3265.02	
Blank Spacing	3.00			3268.02	14.02 Tool Interval
Packer	5.00			3273.02	
Blank Spacing	64.00			3337.02	
Perforations	2.00			3339.02	
Recorder	0.01	13547	Below	3339.03	
Bullnose	3.00			3342.03	74.01 Bottom Packers & Anchor

Total Tool Length: 116.03



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FLUID SUMMARY

Samuel Gary Jr & Associates Inc
1670 Broadway Ste 3300 Denver CO 80202

ATTN: Tom Fertal

Frees #1-20
20 18S 9W Rice KS
Job Ticket: 28216 **DST#: 1**
Test Start: 2007.03.10 @ 14:04:25

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	40 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	19000 ppm
Viscosity:	42.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.17 in ³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3200.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
150.00	Water RW .46 @ 55F	0.738
90.00	MGO 20%G 46%O4%W 30%M	0.443
650.00	CO	4.790
0.00	90 ' GIP	0.000

Total Length: 890.00 ft Total Volume: 5.971 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

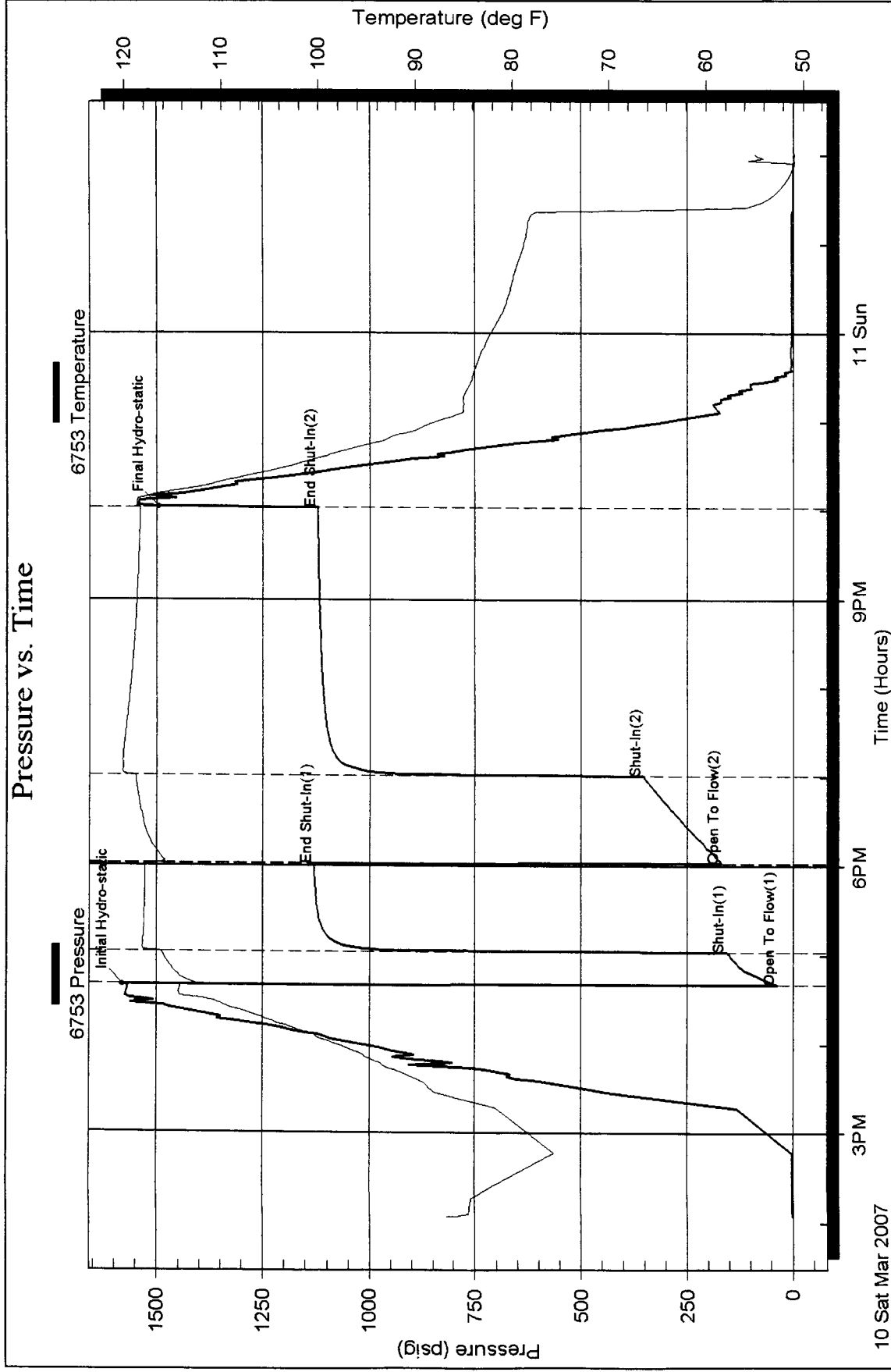
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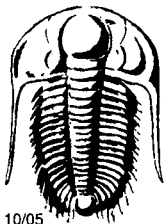
Inside

Samuel Gary Jr & Associates Inc

20 18S 9W Rice KS

DST Test Number: 1





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

28216

9919 ✓

Test Ticket

Well Name & No.	<u>Frees #1-20</u>	Test No.	<u>1</u>	Date	<u>3-10-07</u>
Company	<u>Samuel Gary Jr & Associates Inc</u>	Zone Tested	<u>Arbuckle</u>		
Address	<u>1670 Broadway, Suite 3300 Denver Co 80202</u>	Elevation	<u>1737</u>	KB	<u>1727</u> GL
Co. Rep / Geo.	<u>Tom FERTAL</u>	Rig	<u>Summit rig 1</u>		
Location: Sec.	<u>20</u>	Twp.	<u>18^s</u>	Rge.	<u>9^w</u>
		Co.	<u>Rice</u>	State	<u>Ks</u>
Comment:		Release date / time:			

Interval Tested	<u>3254-3268</u>	Initial Str Wt./Lbs.	<u>37000</u>	Unseated Str Wt./Lbs.	<u>45000</u>
Anchor Length	<u>14</u>	Wt. Set Lbs.	<u>25000</u>	Wt. Pulled Loose/Lbs.	<u>55000</u>
Top Packer Depth	<u>3254-3249</u>	Tool Weight	<u>2200</u>		
Bottom Packer Depth	<u>3268</u>	Hole Size 7 7/8"	<u>-</u>	Rubber Size 6 3/4"	<u>-</u>
Total Depth	<u>3339</u>	Wt. Pipe Run	<u>-</u>	Drill Collar Run	<u>248</u>
Mud Wt.	<u>9.2</u> LCM <u>1#</u> Vis. <u>42</u> WL <u>9.2</u>	Drill Pipe Size	<u>3 1/2 XH</u>	Ft. Run	<u>3007</u>
Blow Description	<u>IFP - Weak To Strong in 15 min</u>				
	<u>FFP - Weak To Strong in 22 min</u>				
	<u>ISIP - No Blow</u>				
	<u>FSIP - No Blow</u>				

Recovery - Total Feet	<u>890</u>	GIP	<u>90</u>	Ft. in DC	<u>248</u>	Ft. in DP	<u>642</u>
Rec.	<u>150</u>	Feet of	<u>WATER</u>	%gas	%oil	%water	%mud
Rec.	<u>90</u>	Feet of	<u>MGO</u>	<u>20</u> %gas	<u>46</u> %oil	<u>4</u> %water	<u>30</u> %mud
Rec.	<u>650</u>	Feet of	<u>CO</u>	%gas	%oil	%water	%mud
Rec.		Feet of		%gas	%oil	%water	%mud
Rec.		Feet of		%gas	%oil	%water	%mud
BHT	<u>118</u>	*F Gravity	<u>40</u>	*API D @	<u>60</u>	*F Corrected Gravity	<u>40</u>
RW	<u>.46</u>	@	<u>55</u>	*F Chlorides	<u>19000</u> ppm Recovery	Chlorides	<u>3200</u> ppm System

(A) Initial Hydrostatic Mud	<u>1569</u> PSI	Recorder No.	<u>6753</u>	Test	<u>✓ 1100[°]</u>
(B) First Initial Flow Pressure	<u>37</u> PSI	(depth)	<u>3255</u>	Jars	<u>✓ 250[°]</u>
(C) First Final Flow Pressure	<u>157</u> PSI	Recorder No.	<u>13534</u>	Safety Jt	<u>✓ 75[°]</u>
(D) Initial Shut-In Pressure	<u>1129</u> PSI	(depth)	<u>3261</u>	Circ Sub	
(E) Second Initial Flow Pressure	<u>170</u> PSI	Recorder No.	<u>13547</u>	Sampler	
(F) Second Final Flow Pressure	<u>353</u> PSI	(depth)	<u>3334</u>	Straddle	<u>✓ 600[°]</u>
(G) Final Shut-In Pressure	<u>1120</u> PSI	Initial Opening	<u>20</u>	Ext. Packer	<u>✓</u>
(Q) Final Hydrostatic Mud	<u>1541</u> PSI	Initial Shut-In	<u>60</u>	Shale Packer	

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Approved By _____

Our Representative Ray Schwager Thank you

Final Flow 60
Final Shut-In 180
T-On Location 1330
T-Started 1404
T-Open 1640
T-Pulled 2200
T-Out 0200

Mileage ✓ 160 RT
Sub Total: 450
Std. By ✓ 45
Acc. Chg ✓ 2675
Other: 150
Total: _____

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart.

13347
OST#1
SAMGARY

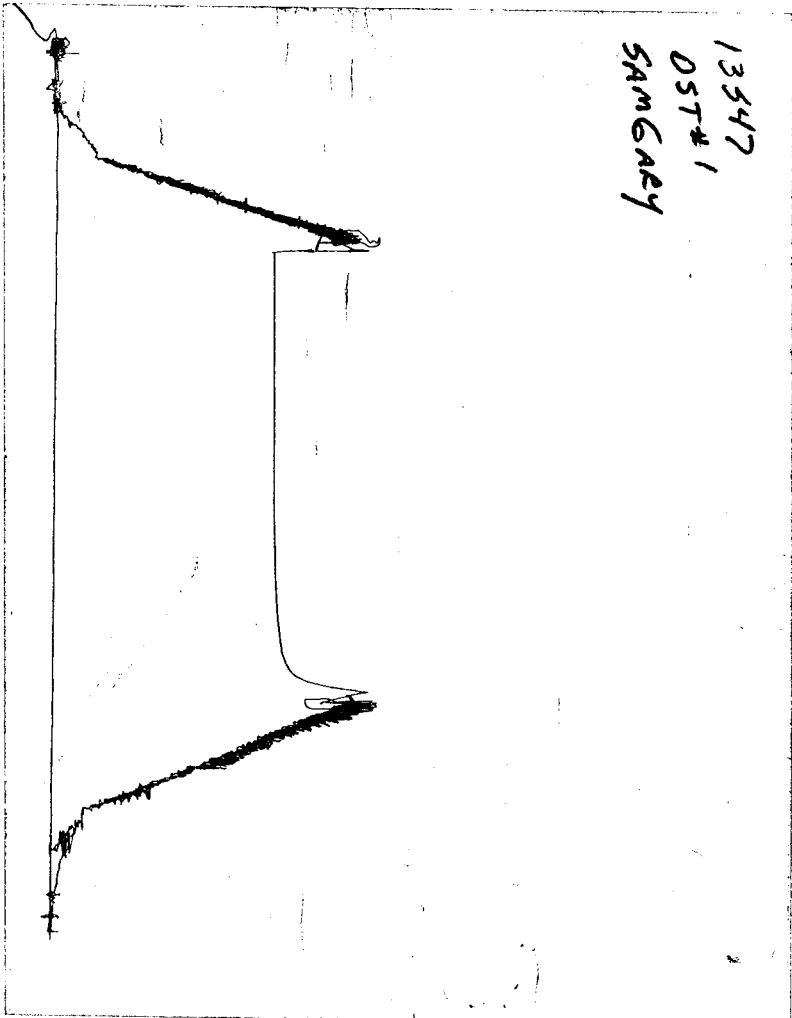


CHART PAGE

This is a photocopy of the actual AK-1 recorder chart.

13534
OST#1
Sandy

